



Remedial Action Report
Plattsburgh Air Force Base - Operable Unit 1
Plattsburgh, New York

Purpose:

The purpose of this report is to provide documentation that remedial action has been completed at Operable Unit 1 at Plattsburgh Air Force Base, Plattsburgh, New York.

Site Description:

Plattsburgh Air Force Base (PAFB) is located within the Town and City of Plattsburgh, Clinton County, New York, approximately 26 miles south of the Canadian border and 167 miles north of Albany, New York. The facility is approximately 3,449 acres in size with an additional 1,292 acres in easements, and is bordered in part by the Saranac River and City of Plattsburgh to the north, the Salmon River to the south, Lake Champlain to the east, and Interstate 87 and State Route 22 to the west. Lands to the east, west, and south of the base are predominantly rural and residential.

Operable Unit 1 addresses source control at Landfill LF-023 (Site LF-023) at PAFB. A second operable unit (Operable Unit 2 at PAFB) addresses groundwater contamination at the site. Site LF-023 is located near the central western border of the facility and was the last active landfill at PAFB. The landfill reportedly received domestic wastes for disposal from 1966 to 1981.

PAFB History:

A military facility has existed in the Plattsburgh area since 1812, when Camp Saranac was established as temporary quarters for Army troops. Construction of permanent barracks began in 1837 and continued as land was added to the installation. Civilian Military Training Camps for the training of line officers began operations in 1915. The U.S. Navy took over operations from the Army in 1944 and operated a training station known as Camp MacDonough until 1945. The U.S. Army then briefly operated a convalescent hospital at the installation until the Plattsburgh Barracks was declared surplus by the War Department and was closed in 1946. Later that year a private college association opened Champlain College for World War II veterans at the installation. Champlain College became part of the state university system in 1950. The facility was returned to the U.S. Government in 1952, when construction of Plattsburgh Air Force base was begun. PAFB served as a tactical (bombardment and air refueling) wing in the Air Force Strategic Air Command (SAC) from 1955 to 1991. In 1991, the bombardment wing was removed and in 1992 operations were realigned to form the 380th Air Refueling Wing under the Air Mobility Command. PAFB was slated for closure in 1993 under the Base Realignment and Closure Act (BRAC) and is currently under the direction of the Air Force Base Conversion Agency (AFBCA). All aircraft are scheduled to be removed from the base during September 1994 and all remaining base operations are scheduled to cease in September 1995.

During its history, a number of operations at the facility have required the use, handling, storage and occasionally the on-site disposal of hazardous substances. During the operational periods of the facility, there have been documented, reported, or suspected releases of these substances into the environment.

Operable Unit 1 (Site LF-023 Source Control) - Site Characteristics

The source of contamination at the site is largely domestic waste. Hazardous wastes were not routinely disposed of in the landfill; however, hazardous materials might have been deposited. Daily operations consisted of digging 25-foot-deep trenches, spreading and compacting the trash (typically bagged household garbage), and backfilling with 6-inch layers of sandy soil. The landfill is approximately 500 feet wide and 800 feet long, and the maximum volume of fill is estimated at 406,000 cubic yards.

The landfill is located approximately 300 feet from the western boundary of the base. Site geology consists of approximately 80 feet of sand, 5 feet of silt, 10 feet of clay, and 25 feet of till overlying carbonate bedrock. Soil within the landfill is poorly graded fine to medium sand with trace silt. Two aquifers at the site include an unconfined aquifer in the sand unit (below the depth of waste), located approximately 30 feet below ground surface, and a confined aquifer in the bedrock. Groundwater in the unconfined aquifer flows south to a series of seeps and drainages and southeast toward Lake Champlain, which is approximately 2 miles from the site. Shallow groundwater discharges to the seeps and drainages approximately 600 feet south of the site. A wetland located several hundred feet south of the site is regulated by the New York State Department of Environmental Conservation (NYSDEC). There are no surface water features within the site.

Operable Unit 1 (Site LF-023 Source Control) - Investigation History and Results:

As part of the Department of Defense Installation Restoration Program, the Air Force conducted a Preliminary Assessment (PA) in 1984 to identify and assess areas or sites on the facility posing a potential threat to human health or the environment due to contamination from past hazardous materials operations. The study identified 22 potentially contaminated sites. A confirmation study (Site Investigation) was conducted at 16 of the sites (including LF-023) in 1987, and the Confirmation Study Report was issued in 1988. The Confirmation Study became the basis for PAFB being placed on the National Priority List (NPL) of hazardous waste sites on November 21, 1989. LF-023 was one of the areas that warranted further investigation.

RI fieldwork at 5 of the 16 sites (including LF-023) was conducted between October 1988 and January 1989. During the Site Investigation at LF-023, groundwater monitoring wells were installed and sampled, and samples were taken from soil borings and the waste itself. RI activities at the site included surface soil, sediment, surface water, and groundwater sampling. The RI Report for Soil (Source Control) at the site was completed in 1992. Analyses of the RI samples confirmed the presence of polynuclear aromatic hydrocarbons (PAHs), silver and PCBs in surface soil, and 1,2 dichlorobenzene in the waste. Subsequent RI activities for the groundwater, surface water, and sediment at the site (OU 2 at PAFB) confirmed the presence of petroleum hydrocarbons (PHCs) in sediment, a number of volatile organic compounds (VOCs), including vinyl chloride, in groundwater, and a small number of inorganics in surface water.

Record of Decision for Operable Unit 1 (Site LF-023 Source Control):

On September 30, 1992, EPA co-signed a Record of Decision written by the Air Force for Operable Unit 1 at PAFB. NYSDEC concurred with the remedy. The remedial action for this operable unit called for the installation of a low permeability cover system meeting the requirements of NYSDEC Part 360 landfill closure and post-closure regulations, institutional

controls including deed notification provisions, and five year site reviews. The objective of the remedial action is to minimize future human health and current and future ecological risks associated with exposure to surface soil contaminants (primarily PAHs), minimize infiltration of precipitation into landfilled waste materials, minimize potential for contaminant migration from waste materials, and minimize erosion of existing cover soils.

Existing vegetation was cleared, grubbed, and removed from the site. The site was then regraded to control rainwater runoff and minimize erosion. The cover's barrier layer was constructed of a synthetic liner to keep rainwater and snowmelt from infiltrating the landfill. The low-permeability barrier layer is covered by a soil barrier protection layer to protect the barrier layer from frost and root penetration. Large plants will not be allowed to root in the soil layer. Six inches of topsoil was then placed over the barrier protection layer and grass was established to minimize soil erosion and enhance evapotranspiration. Post-closure groundwater and surface water monitoring will be conducted based on the LF-023 Post-Closure Monitoring and Maintenance Operations Manual, developed for the Air Force by Malcolm Pirnie Inc. Additional monitoring and institutional controls are specified in detail in the ROD for OU 2, which will address groundwater, surface water, and sediment at the site.

Remedial Action Design and Construction:

The Air Force was the lead agency for all remediation activities. Remedial design was performed by Malcolm Pirnie Inc. and construction activities were performed by AWD Technologies, both through intermediate contracts with the U.S. Army Corps of Engineers. The Air Force conducted a pre-final inspection on July 13, 1994 and accompanied the EPA Remedial Project Manager (RPM) on an inspection on July 21, 1994. The EPA RPM found construction of the cap to be satisfactorily completed. The Air Force conducted a final inspection of the landfill cap construction on September 19, 1994, and notified EPA that the project was completed on September 27, 1994.

Operation and Maintenance:

Operation and maintenance (O & M) at Site LF-023 will begin during fiscal 1995 upon award of the contract. Groundwater monitoring is scheduled to be conducted on a quarterly basis.

Future Actions:

It should be noted that Operable Unit 1 forms only one component of the remedial action planned for Site LF-023. The Final Record of Decision for Operable Unit 2 (Groundwater, Surface Water, and Sediment at Site LF-023) is scheduled for completion by the Air Force prior to March 31, 1995.



DEPARTMENT OF THE AIR FORCE
AIR FORCE BASE CONVERSION AGENCY

27 Sep 94

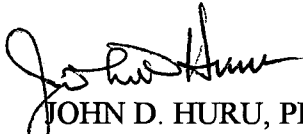
MEMORANDUM FOR US ENVIRONMENTAL
PROTECTION AGENCY
REGION II
ATTN: MR. ROBERT WING
26 Federal Plaza, Room 2930
New York, New York 10278

FROM: AFBCA/OL 3A
324 US Oval
Plattsburgh AFB NY 12903-3316

SUBJECT: Landfill LF-023 Cap Construction

This is to notify your office that the above-noted project has been completed as of 22 Sep 94. The Operation and Maintenance of the Landfill will begin in FY 95 upon award of that contract.

If you have any questions, please contact Mr. Brady Baker at (518) 565-5301.


JOHN D. HURU, PE
Site Manager

cc:
New York State Dept of Envmtl Conservation
ATTN: Mr. James Lister
Federal Projects Section
Bureau of Eastern Remedial Action
50 Wolf Road
Albany, New York 12233-7010

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION II

Morse

DATE: SEP 30 1994

SUBJECT: Approval of the Remedial Action Report for Operable Unit 1 at
Plattsburgh Air Force Base, Plattsburgh, New York

FROM: Robert J. Wing, Chief *Robert J. Wing*
Federal Facilities Section

LF-023

Source

TO: Vince Pitruzzello, Chief
Program Support Branch

Attached for your approval is a Remedial Action Report,
documenting the completion of remedial action at Operable Unit 1 (LF-023) *V*
at Plattsburgh Air Force Base, Plattsburgh, New York. SOURCE CONTROL

Please denote your approval of the subject document by signing
below.

Attachment

Approved:

V A Pitruzzello
Vince Pitruzzello, Chief
Program Support Branch

9/30/94
Date

cc: D. Vizian, PSB